BRUHAT BANGALORE MAHANAGARA PALIKE
YELAHANKA ZONE

Name of Work: Development Works for providing Drinking Water Facility in Ward.No.07 (Byatrayanapura), Kodigehalli Sub Division

Estimate Cost Rs. 2500000.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.48, I. 9.4) PRED.SR 2012-13								
		Each BW	2				2	1882.00	3764.00
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13								
	0 to 50 m	Rmtr	2	50.00	315.18		100.00	306.00	30600.00 31518
	50 to 100 m	Rmtr	2	50.00	412.00		100.00	400.00	40000.00 41200
	100 to 150 m	Rmtr	2	50.00	458.35		100.00	445.00	44500.00 45825
	150 to 200 m	Rmtr	2	50.00	484.10		100.00	470.00	47000.00 48410
	200 to 250 m	Rmtr	2	50.00	560.32		100.00	544.00	54400.00 56032
	250 to 300 m	Rmtr	2	50.00	600.49		100.00	583.00	58300.00 60049
3	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty P. iii, I No. 84 PRED SR 2012-13								
		Rmtr	2	50.00			100.00	1325.00	132500.00
4	Providing 250mm dia PVC Pipe 6kg/cm ~~SE PRED~~ Approved Rate BWSSB SR for 2014-15 P-53 item No. 1(11)							1100	39600
		Rmtr	2	18.00			36.00	754.47	27161.00
5	Providing and fixing 160mm Borewell Cap P. iii, I No. 85								
		Each	2				2	100.00	200.00

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
6	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps PWD SR 2014-15 P. XXXXII Item No. 24 including of all taxes								
	12.5 HP 25 Stage	No	2				2	60400.00	120800.00
7	Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part I/1990 with amendament 1-5 and with all its latest amendements if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15.10.2008								
		Rmt	2	250.00			500.00	375.00	187500.00
8	Heavy Duty Collar 50 mm dia	Nos	83				83	130.00	10842.00
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15								
		Mtr	4	255.00			1020.00	188.70	192474.00
10	Erection of pumpset including aligning and balancing with all necessary erection materials and labour including supply and erection of one pair supporting clamps, one borewell cap. Cable clips with bolts, nuts, valves guages etc., involoved in the job (Necessary GI pipe and specials with be supplied by the board at the site free of cost) (As per rate approved KUWS & DB for year 2008-09								
		No	2				2	3000.00	6000.00
11	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15								
		Each	2				2	302.00	604.00
12	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15								
		Mtr	2	30.00			60.00	140.40	8424.00
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15								
		Mtr	2	30.00			60.00	10.80	648.00
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15								

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	[illegible]r Cutting Road Surface	Mtr	2	25.00			50.00	85.00	4250.00
15	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15								
	40mm dia GI pipe	Mtr	2	4.00			8.00	345.00	2760.00
16	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15								
	16Sqmm	No.	2				2.00	280.00	560.00
17	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, (P No. 55, I No. 7.1) KPWD Electrical SR 2014-15								
		No	2				2	2727.00	5454.00
18	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15								
	32 Amps	No.	4				6	180.00	1080.00
19	KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 Page No. 90 Item No. 13.55 / PWD SR 2014-15								
		Nos	2				2	1579.40	3159.00
	Basic Rate	1490.00							
	Area Weightage @ 6%	89.40							
	Total	1579.40							
20	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. P No. 92 / I. No. 13.81.3 PWD SR 2014-15								
	50mm dia	No	2				2	227.90	456.00
	Basic Rate	215.00							
	Area Weightage @ 6%	12.90							
	Total	227.90							
21	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete PWD SR 2015-16 page xxxvii							104.3	834
		No	2	4.00			8	80.00	640.00
22	Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications market rate							1350	2700
		No	2				2	350.00	700.00
23	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 5-32Amps TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15								
		No	2				2	1547.00	3094.00

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
24	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete P.No. 49, I. No. 6.40.2 KPWD Electrical SR 2014-15								
	16SWG	Sq.Cm	4	120.00	60.00		28800.00		
			2	360.00	25.00		18000.00		
							46800.00	0.33	15444.00
25	Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum- control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. 12.5HP to 15 HP Star Delta Starter ~~SERDED Rate~~							6583	13166
		No.	2				2	11000.00	22000.00
26	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil								
		Cum	2	250.00	0.60	0.75	225.00		
							225.00	188.00	42300.00
	Basic Rate	188.00							
27	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., Page No.15 item No.3.4.2 b PRED SR 2012-13.								
	75 mm dia 6 KSC PVC pipe	Rmtr	2	250.00			500.00		
							500.00	157.00	78500.00
28	Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including authority condition in layers from thedi including disponsary of the sunplus earth with a heavy 200 mtrs Page No. 3 / Item No. 1.6 / PRED SR 2012-13								
		Cum	Qty. Vide Item No. 27				225.00	61.00	13725.00
	Basic Rate	61.00							
29	KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 P. 88 / I.13.37 PWD SR - 2014-15								
		Each	4				4	2120.00	8480.00
	Basic Rate	2000.00							
	Area Weightage @ 6%	120.00							
	Total	2120.00							
30	BESCOM charges	LS					2	14500.0	29000.00

Borewell Repair Works

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Rewinding								
31	Starter (with one year Guarantee) (Page No. 58, Item No. C(1) of BWSSB SR 2014-15)	No.	27				27	5940.00	160380.00
32	Rotor (with one year Guarantee)(Page No. 58, Item No. C(2) of BWSSB SR 2014-15)	No.	27				27	4400.00	118800.00
33	Upper Flange (Page No. 58, Item No. C(3) of BWSSB SR 2014-15)	No.	27				27	330.00	8910.00
34	Lower Housing (Page No. 58, Item No. C(4) of BWSSB SR 2014-15)	No.	27				27	539.00	14553.00
	Carbon Housing (Page No. 58, Item No. C(7a) of BWSSB SR 2014-15)	No.	27				27	407.00	10989.00
	Thrust bearing block assembly complete with Segment bearing pad.(Page No. 58, Item No. C(7b) of BWSSB SR 2014-15)	No.	27				27	550.00	14850.00
	C) Replacement of pump parts: The following main components of submersible pump sets requiring replacement.								
	Oil Seal (Page No. 58, Item No. B(3) of BWSSB SR 2014-15)	No.	27				27	121.00	3267.00
	Oil Seal Steel Bush (Page No. 58, Item No. B(4) of BWSSB SR 2014-15)	No.	27				27	132.00	3564.00
	Guide vane (Page No. 58, Item No. B(5) of BWSSB SR 2014-15)	No.	405				405	192.50	77963.00
	Impeller Shell moulded with aluminium Bronze) (Page No. 58, Item No. B(6) of BWSSB SR 2014-15)	No.	405				405	264.00	106920.00
	Discharge outlet (D.O) Bearing D.O Steel Bush (Page No. 58, Item No. B(7) of BWSSB SR 2014-15)	No.	27				27	522.50	14108.00
	Steel bearing bush (Page No. 58, Item No. B(8) of BWSSB SR 2014-15)	No.	27				27	176.00	4752.00
	Pump shaft made out of stainless steel Centreless ground with key way (upto 8 stages) (Page No. 58, Item No. B(10) of BWSSB SR 2014-15)	No.	27				27	660.00	17820.00
35	Non – return valve (NRV) assembly complete with rubber 'O' Ring (Page No. 58, Item No. B(13) of BWSSB SR 2014-15)	No.	27				27	572.00	15444.00
36	Cable Guard (Page No. 58, Item No. B(14) of BWSSB SR 2014-15)	No.	27				27	150.00	4050.00
37	Brass Filter (Page No. 58, Item No. B(16) of BWSSB SR 2014-15)	No.	27				27	121.00	3267.00
38	Re-erection charges of pumping machineries including overhauling and pointing (Page No. 58, Item No. B(17) of BWSSB SR 2014-15)	Each	27				27	550.00	14850.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
39	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 Volts. P. No. ~~49~~ 12 / I No. ~~29-b(1)~~ 4 Sqm ~~mm~~ 2.10.3 of 56 strands 0.3mm dia Group - A KPWD Electrical SR 2010-11 15	Mtr					520	126.70	65884
40			2	260.00			260.00	151.00	39260.00
	C) Replacement of pump parts: The following main components of submersible pump sets requiring replacement.								
41	Oil Seal P. No. 54 / I No.10.2.3 PRED SR (2012-13)	No.	1				1	125.00	125.00
42	Oil Seal Steel Bush P. No. 54 / I No. 10.2.4 PRED SR (2012-13)	No.	1				1	150.00	150.00
43	Guide vane P. No. 54 / I No. 10.2.5 PRED SR (2012-13)	No.	15				15	175.00	2625.00
44	Impeller Shell moulded with aluminium Bronze) P. No. 54 / I No. 10.2.6 PRED SR (2012-13)	No.	15				15	425.00	6375.00
45	Discharge outlet (D.O) Bearing D.O Steel Bush P. No. 55 / I No. 10.2.7 PRED SR (2012-13)	No.	1				1	445.00	445.00
46	Steel Bush P. No.55 / I No. 10.2.9 PRED SR (2012-13)	No.	1				1	150.00	150.00
47	Pump shaft made out of stainless steel Centreless ground with key way (upto 8 stages) P. No. 55 / I No. 10.2.11 PRED SR (2012-13)	No.	1				1	950.00	950.00
48	Non – return valve (NRV) assembly complete with rubber 'O' Ring P. No. 55 / I No. 10.2.14 PRED SR (2012-13)	No.	1				1	1350.00	1350.00
49	Cable Guard P. No. 55 / I No. 10.2.15 PRED SR (2012-13)	No.	1				1	150.00	150.00
50	Brass Filter P. No. 55 / I No. 10.2.17 PRED SR (2012-13)	No.	1				1	250.00	250.00
51	Re-erection charges of pumping machineries including overhauling and pointing P. No. 56 / I No. 10.3.20 PRED SR (2012-13)	Each	1				1	950.00	950.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
52	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 Volts. P. No. 49/ I No. 29-b(1) 4 Sqm mm of 56 strands 0.3mm dia Group - A KPWD Electrical SR 2010-11	Mtr	1	260.00			260.00	151.00	39260.00
53	Supply of Drinking Water through water tankers of Capacity 3000 Liters including hiring of water tankers, hiring of tractor 40HP including cost of water and engaging heavy mazdoor to deliver water from source to supply point including cost of fuel, lubricants, men and machinary, all leads and lifs, transportation, labour etc. complete market rate	Trips	885				900	452.0	406800.00
	Sub Total								2290646.00
54	KRIDL charges at 8% of estimated cost								183252.00
55	For Third Part QC inspection Charges @ 1% of Estimate Cost								22906.00
56	Miscellaneous and other Charges	L/S							3196.00
								Total	2500000.00

(Rupees Twenty Five Lakhs Only)

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of PWD 2015-16, PWD Elecrical 2014-15, PRED 2012-13 & SE-RDED
3 The provisions were made in this estimate are necessary and adequate.

Assistant Engineer
Ward no. 8

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP

Executive Engineer
Byatarayanapura Division
BBMP

Administrative Approval
Accorded For 25.00 lakh Rs
Head of A/C 14th finance
CER NO : 145 Dt:. 16.03.16

TA CE (YNK)

Technical Sanction
Accorded For 25.00 lakh Rs
Head of A/C 14th finance
CER NO : 134 Dt:. 16.03.16

TA CE (YNK)